Public Notice

U S Army Corps of Engineers
Huntington District

In reply refer to Public Notice No. LRH-2005-889-SCR

Issuance Date: April 20, 2007

Stream: Scioto River and Tributaries

Closing Date May 21, 2007

Please address all comments and inquiries to:
U.S. Army Corps of Engineers, Huntington District
ATTN: CELRH-OR-F Public Notice No. *(reference above)*
502 Eighth Street
Huntington, West Virginia 25701-2070 Phone: (304) 399-5210

PUBLIC NOTICE: The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

REGULATORY PROGRAM: Since its early history, the U.S. Army Corps of Engineers (Corps) has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the Corps Regulatory Program.

SECTION 10: The Corps is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate all work or structures in or affecting the course, condition or capacity of navigable waters of the United States (U.S.). The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

SECTION 404: The Corps is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the discharge of dredged and fill material into all waters of the United States, including wetlands. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

TO WHOM IT MAY CONCERN: The following application has been submitted for a Department of the Army Permit under the provision of Section 404 of the Clean Water Act.

APPLICANTS: City of Columbus
Ms. Tatyana Arsh, P.E.
Director, Department of Public Utilities
910 Dublin Road
Columbus, OH 43215

LOCATION: The proposed project is located in the Scioto River, adjoining tributaries and adjacent wetlands along Highway 257 between Davis-Kirk Road and Smokey Road, north of the City of Columbus, in Delaware and Union Counties, Ohio (see attached figures).

DESCRIPTION OF THE PROPOSED WORK: The proposed action is the implementation of the first phase of the Columbus Upground Reservoir Project. The 1998 *Water Beyond 2000* report indicated that major efforts would be required to provide adequate water supplies to serve the City of Columbus and adjacent communities in future years. A plan was developed that would include the construction of three "upground reservoirs" (designated as Reservoirs R-1, R-2 and R-3) on land owned by the City of Columbus in northwestern Delaware County, with a small portion extending into Union County. At this time the application is for R-2. The applicant would submit plans for R-1 and R-3 if additional reservoirs are needed.

The current 10/404 application (Phase I) includes the installation of an inflatable weir in the Scioto River, construction of an intake structure and pump station, construction of 21,500 LF of raw water pipeline, construction of an outfall structure on Ottawa Creek and construction of Reservoir R-2. The proposed work in the Scioto River is required to allow the installation of the proposed inflatable weir and the water intake device. The inflatable weir would be approximately 150 feet long and would have a rise of about 5 feet 9 inches, creating a backwater with a supply pool of at least 109 acre-feet of water.

The inflatable weir would be completely deflated whenever pumping is not required for raw water supply diversion. Due to the auto-deflate feature, water levels would not exceed 8 foot in depth, commensurate with a 2-year storm or less as determined by recent HECRAS simulations. The pumping that would be required to maintain the water supply in the proposed upground reservoir would be timed to occur during the high flow periods of the river, and not result in significant reductions of the river flow during these high flow periods. The backwater pool would need to extend back to the existing Prospect Dam, a distance of about 1.2 miles. However, as discussed in the mitigation section, it is proposed that the Prospect Dam be removed as a stream mitigation measure for this project. With the dam removed, the weir backwater will extend back beyond the existing Prospect Dam approximately 7 miles.

The construction of the inflatable weir and related construction activities would impact approximately 0.07 acre of the Scioto River. The construction of the raw water pipeline would impact approximately 0.02 acre of open water area, including crossing of an unnamed tributary of the Scioto River and Ottawa Creek. The construction of Reservoir R-2 would involve the excavation, filling, and eventual inundation of approximately 7.27 acres of jurisdictional and 0.162 acre of isolated wetland areas (see attached tables).

Plans of the proposal are attached to this notice.

ALTERNATIVE ANALYSIS: The project does not require access to or siting within the wetlands to fulfill its basic purpose and is considered a non-water dependent activity; therefore, the applicant is required to show that other less damaging practicable alternatives are not available that would achieve the applicant's goal. The Section 404(b)(1) Guidelines state that for non-water dependent activities, practicable alternatives that do not involve wetlands are presumed to be available unless clearly demonstrated otherwise. The applicant is required to provide an alternative analysis that must overcome the presumption prior to receiving authorization for the placement of fill material. The applicant has submitted the required alternative analysis and it is currently under review. No permit will be issued until our review of the alternative analysis clearly shows that upland alternatives are not available to achieve the applicant's goal.

MITIGATION PLAN:

Stream Mitigation: As mitigation for the construction of the proposed inflatable weir, the City proposes to remove the dam currently in place upstream in the town of Prospect. The applicant indicates essentially "replacing" this permanent impoundment with the seasonal inflatable weir should result in increased distribution of fish and mussel species in this portion of the Scioto River, as well as overall impacts to biota due to the reduction in overall impoundment of this portion of the Scioto River.

Wetland Mitigation: Because the majority of the impacted wetlands are low quality Category 1 wetlands, the applicant has requested off-site mitigation. It is proposed that mitigation be provided by the Ohio Wetlands Foundation at an existing wetland mitigation bank (Little Scioto Mitigation Bank) (7.5 wetland mitigation credits) and at a new pooled wetland mitigation site (Kuhlwein Road) (3.7 mitigation credits). The total mitigation credits would be 11.2. The Kuhlwein site is jointly owned by the Columbus Board of Park Commissioners and the Franklin County Park District. Copies of the proposed mitigation plan are available for review upon request.

A section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain the certification from the Ohio Environmental Protection Agency.

HISTORIC AND CULTURAL RESOURCES: The National Register of Historic Places has been consulted and it has been determined that there are currently no historic properties listed in the National Register in the area affected by the project. The applicant provided a copy of the "Report of Phase I Cultural Resources Survey for the Proposed City of Columbus Upground Reservoir Site 3, Pump Stations, and Pipeline in Thompson, Scioto and Concord Townships, Delaware County, Ohio," conducted by Hardlines Design Company. The applicant also provided a copy of the "Phase 1 Cultural Resources Literature Review for Columbus Upground Reservoirs #1 and #2 , and Reconnaissance Survey for Columbus Upground Reservoir #2 in Thompson Township, Delaware County, Ohio and Claibourne Township, Union County, Ohio," conducted

by ASC Group, Inc. The applicant submitted the reports to the State Historic Preservation Office (SHPO) for their review and approval. By email dated March 7, 2007, the SHPO requested the remaining work necessary to complete a Phase I for the proposed project be completed and compiled with the existing information in one Executive Summary for submittal to the Corps. A copy of this public notice will be furnished to the Ohio State Historic Preservation Office for their review. Comments concerning archeological sensitivity of the project area should be based upon collected data.

ENDANGERED/THREATENED SPECIES REVIEW: The project is located within the known or historic range of the following endangered species:

Indiana Bat
Clubshell Mussel
Bald Eagle
Rayed Bean Mussel

The Huntington District has consulted the most recently available information and based on a letter dated November 29, 2005 from the U.S. Fish and Wildlife Service (USFWS) the Corps has determined the project would have "no effect" on the bald eagle. In a letter dated December 15, 2005, MS Consultants, Inc. provided an aquatic resources report by Dr. Michael Hoggarth, as well as an Indiana bat habitat evaluation to the USFWS. Based on the report, the USFWS, in a letter dated August 8, 2006, recommended the stream mitigation described above (removal of the Prospect Dam), and determined any impacts to the clubshell mussel and rayed bean mussel would be discountable. Therefore, the Corps has made a "may affect, not likely to adversely affect" determination for these two mussel species. The USFWS also inspected the site on June 1, 2006, and determined that minimal habitat for the Indiana Bat was present. They recommended seasonal cutting restrictions. Based on their information the Corps has made a "may affect, not likely to adversely affect" determination for the Indiana Bat. This public notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

PUBLIC INTEREST REVIEW AND COMMENT: Any person who has an interest that may be adversely affected by the issuance of a permit may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity. This application will be reviewed in accordance with 33 CFR 320-331, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b) (1) of the CWA. Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an

evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; of those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.

SOLICITATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. For accuracy and completeness of the administrative record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to:

North Regulatory Permit Section - CELRH-OR-FN- LRH-2005-889
U. S. Army Corps of Engineers Huntington District
502 Eighth Street
Huntington, West Virginia 25701-2070

Please note, the names and addresses of those who submit comments in response to this public notice become part of our administrative record and, as such, are available to the public under

provisions of the Freedom of Information Act. Thank you for your interest in our nation's water resources. If you have any questions concerning this public notice, please contact Mr. Stan Walker of the North Regulatory Section at 304-399-5210.

Ginger Mullins
Regulatory Branch

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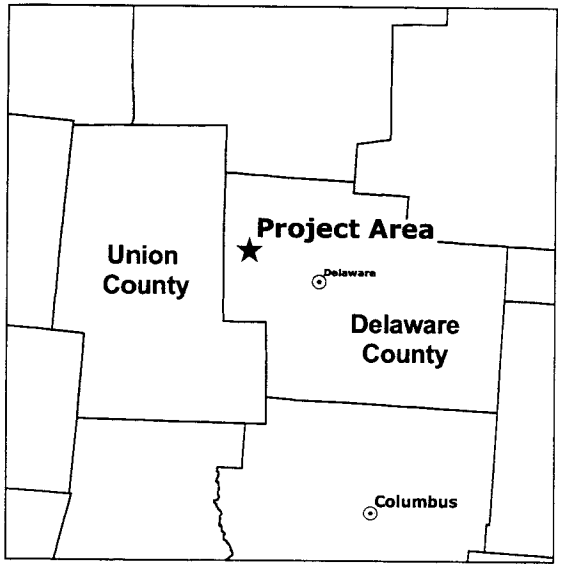
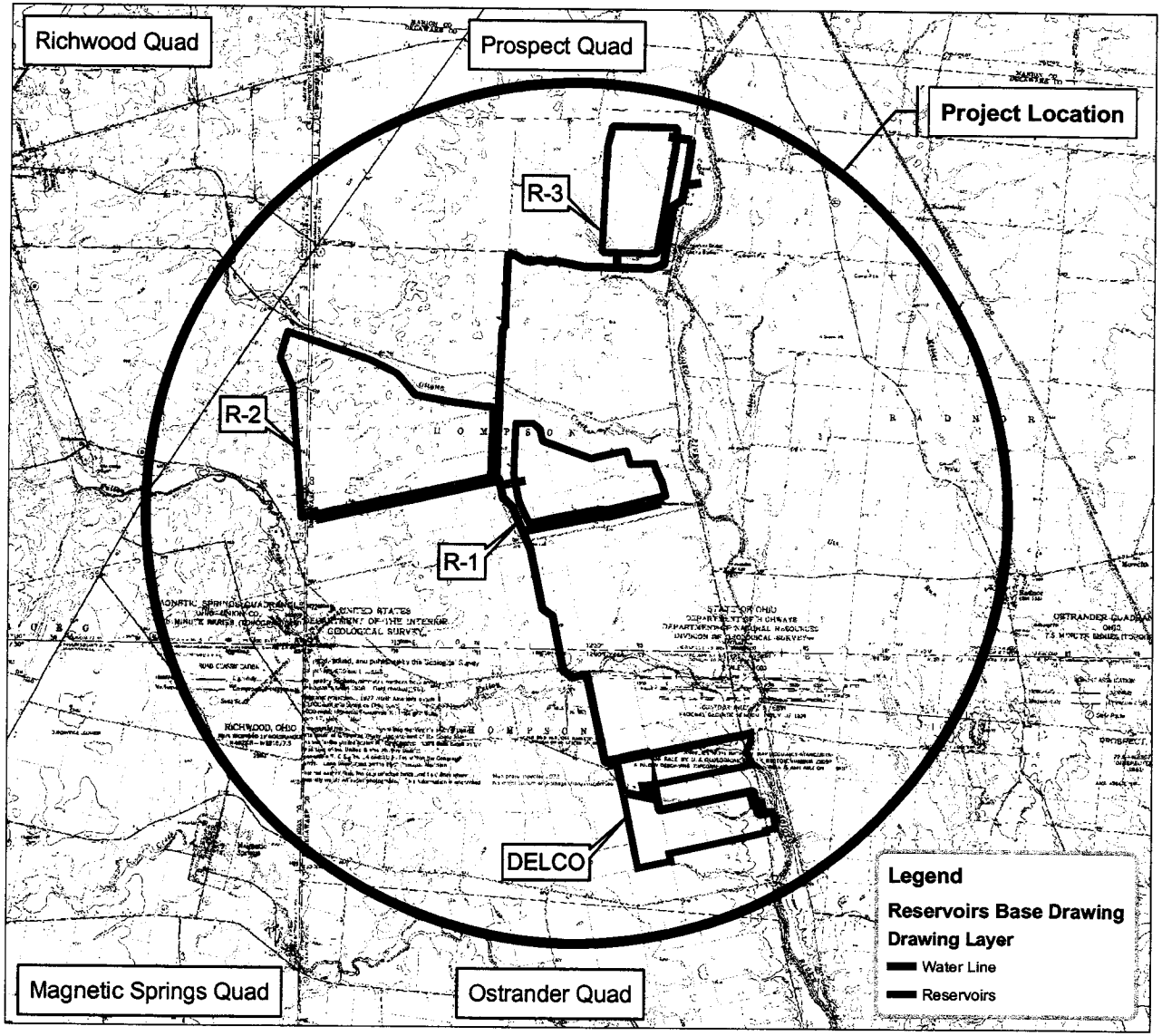
Project Location Map

Figure 1





N
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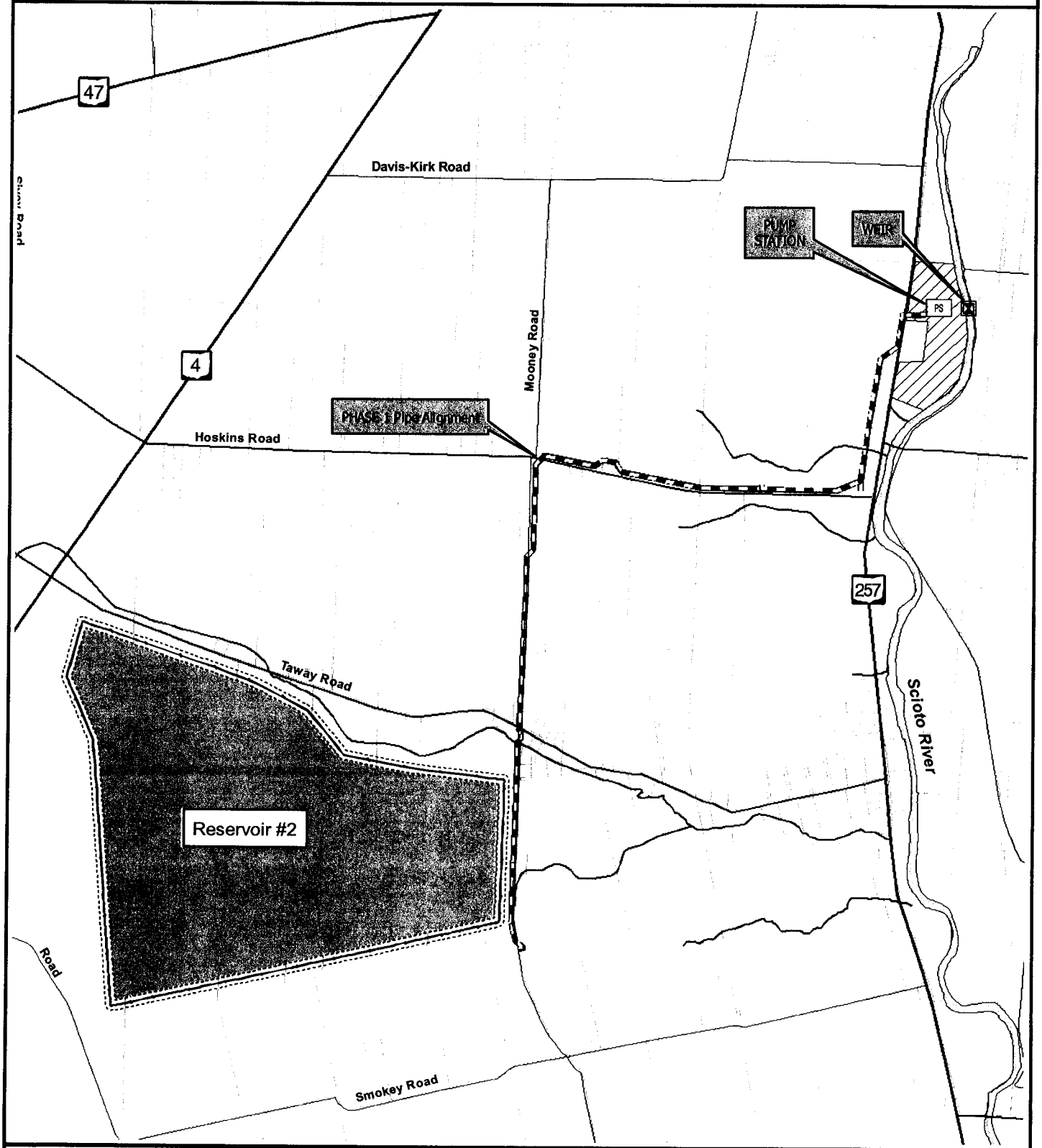
Delaware and Union Counties, Ohio
Columbus Upground Reservoir Project

COLUMBUS UPRGROUND RESERVOIR PROJECT - PHASE 1

FIGURE 2



COLUMBUS UPGROUND - PHASE 1 PROJECT

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0 0.25 0.5 1 1.5 2 Miles

Inflatable Weir

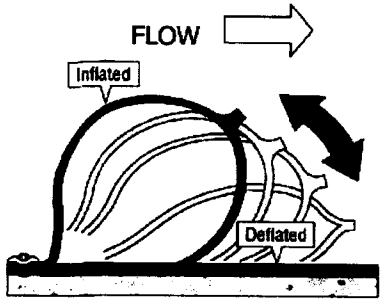
FIGURE 3

An inflatable weir is a bladder made of heavy-duty nylon-reinforced rubber, with a special cover to withstand ozone and ultraviolet light.

ADVANTAGES:

-Low cost compared to other controlled gates
-Low environmental impact
-Long service life (up to 30 years)
-Very low maintenance
-Ease of construction
-Excellent operation features in ice conditions
-Safe deflation under any conditions
-Ability to control water level

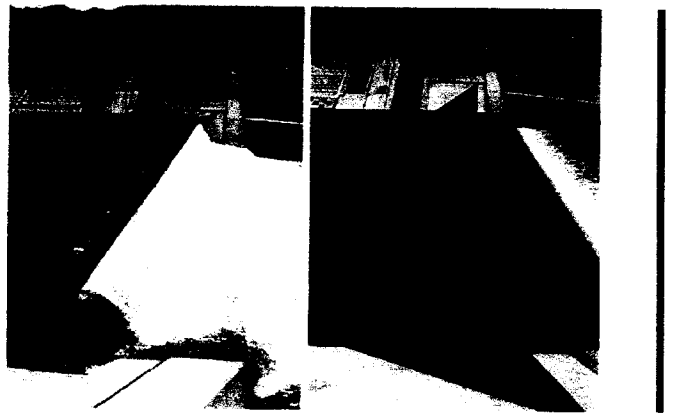
Inflatable weirs have been installed in more than 20 countires, including Mexico, Japan, Norway, Thailand and throughout the United States.



Rio Saledo Dam, Tempe, Arizona

PIT #3 Dam, Lassen National Forest, Susanville, California

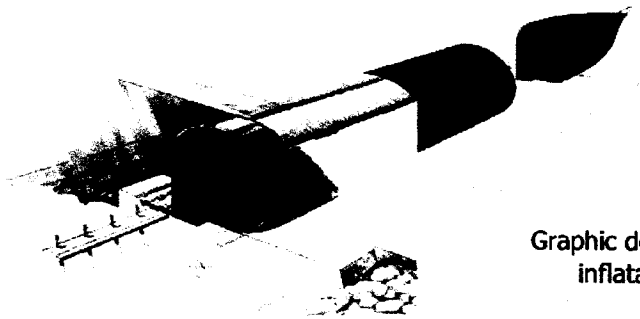
Upground Reservoir Project



Weir Inflated: This picture illustrates the flow in the inflated position.

Weir Deflated: This picture illustrates the flow in the deflated position.

The thickness of the bladder ranges in size from 9.5 mm to 25 mm.

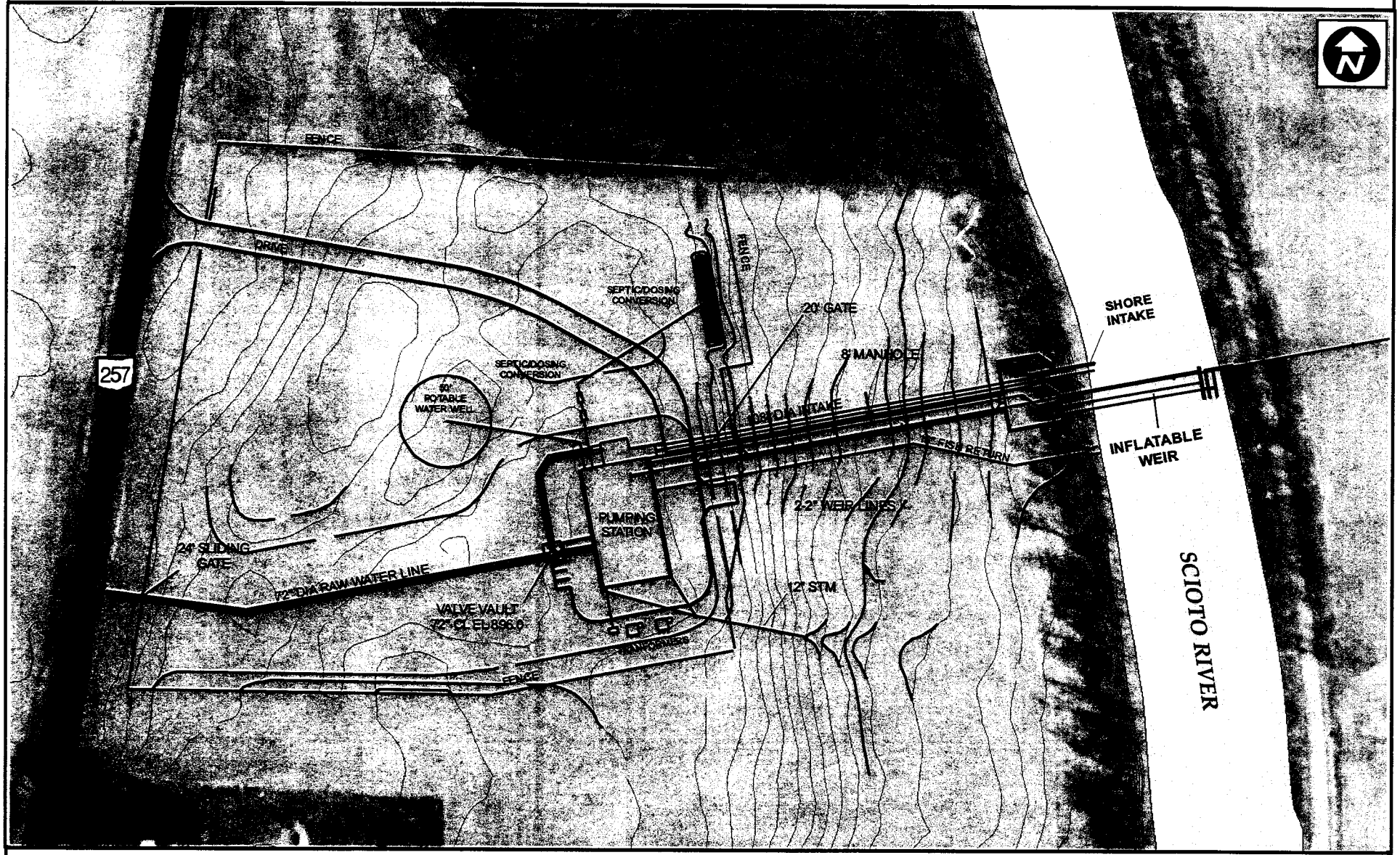


Graphic depiction of an inflatable weir.

COLUMBUS UPGROUND - PHASE 1 PROJECT

Site Plan - Water Intake Pumping Station

FIGURE 4



COLUMBUS UPGROUND - PHASE 1 PROJECT

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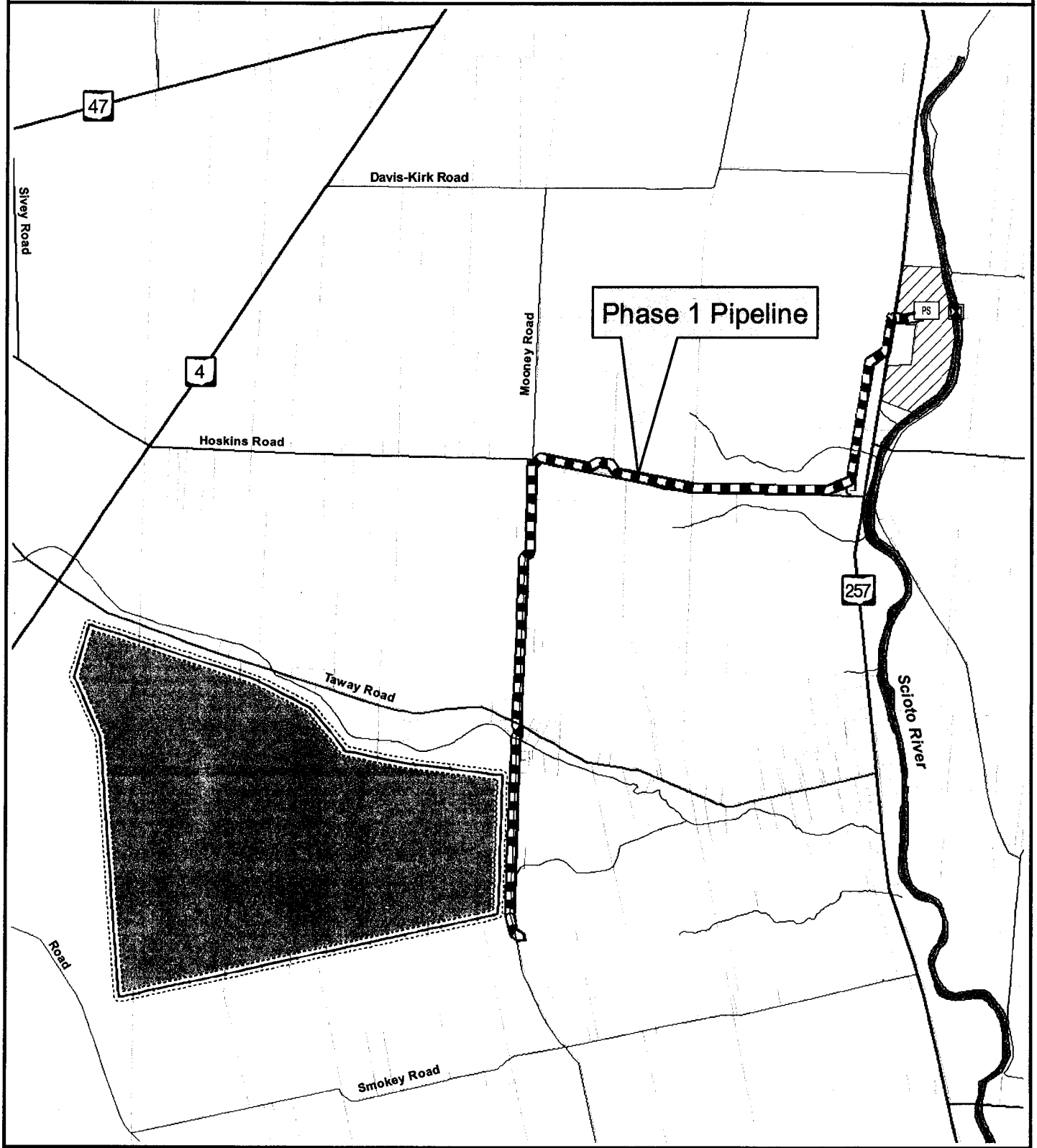
0 125 250 500 750 Feet

Phase 1 Pipeline **FIGURE 5**



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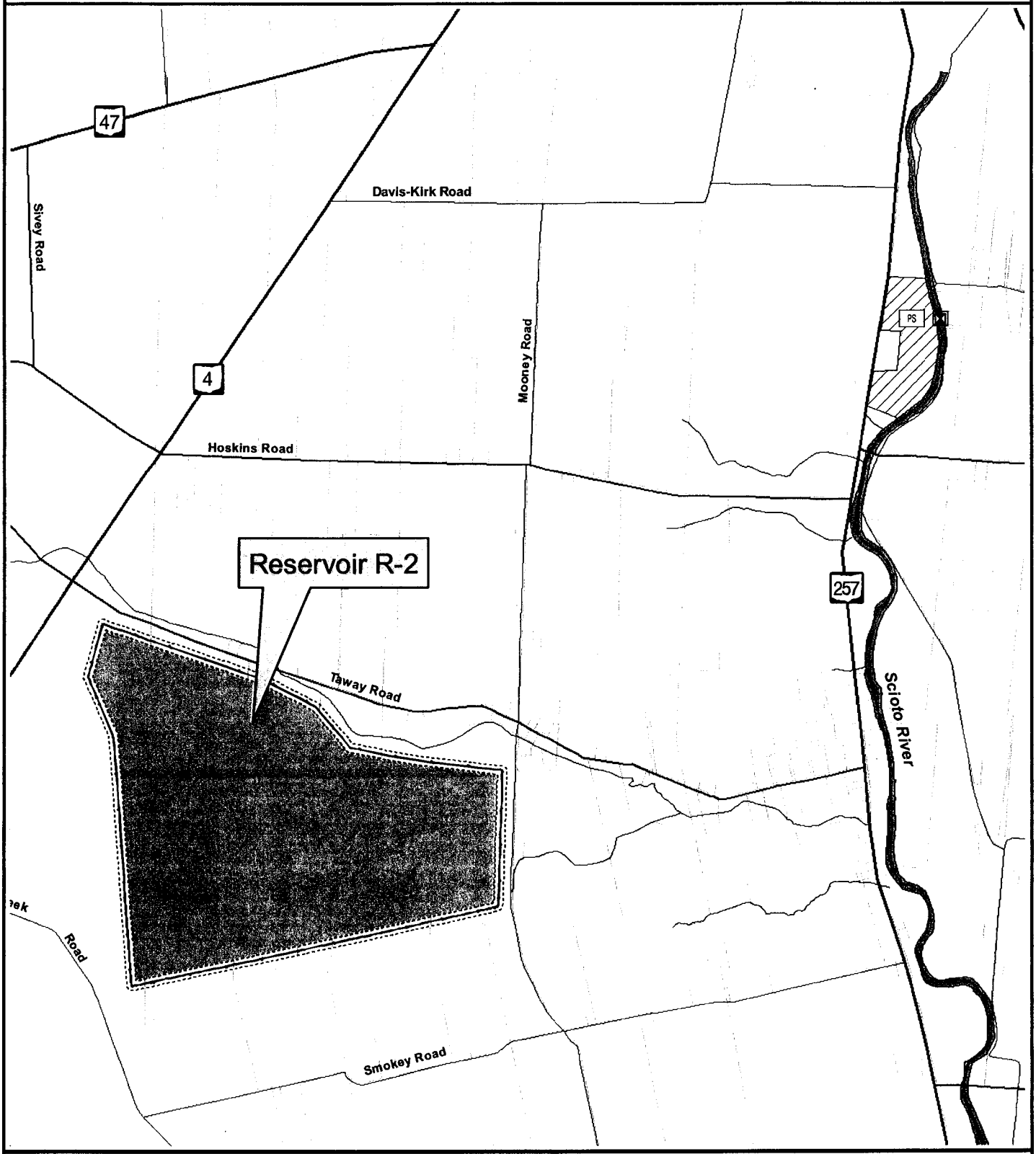
0 0.25 0.5 1 1.5 2 Miles

Upground Reservoir - R-2

FIGURE 6



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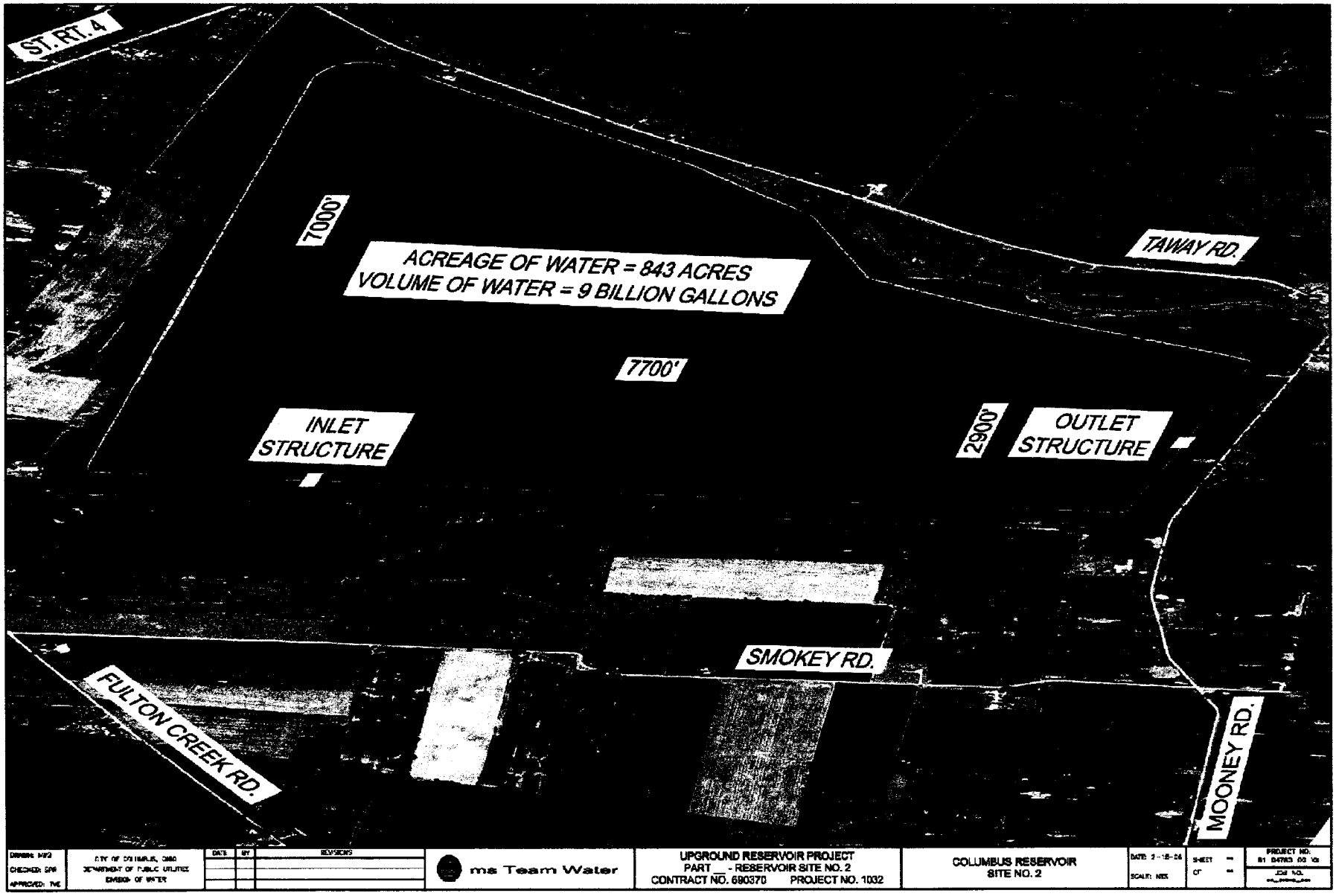
0 0.25 0.5 1 1.5 2 Miles

Reservoir R-2 Rendering

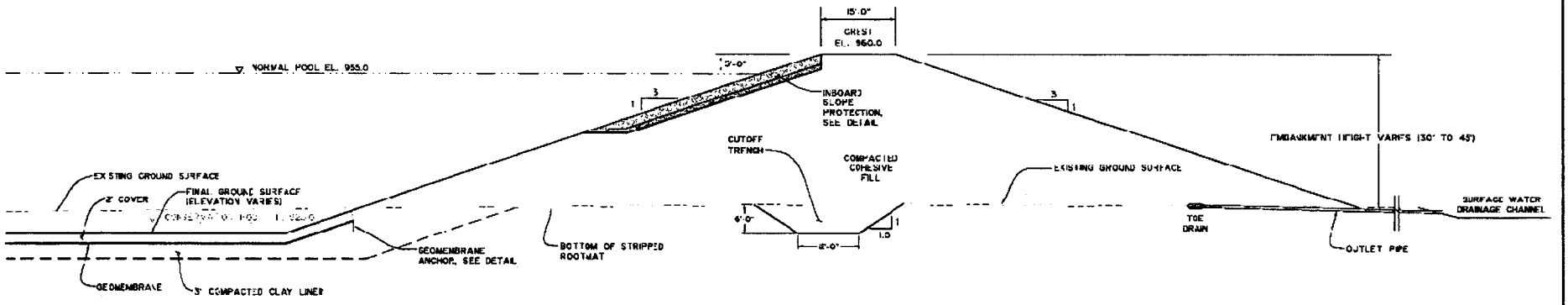
FIGURE 7



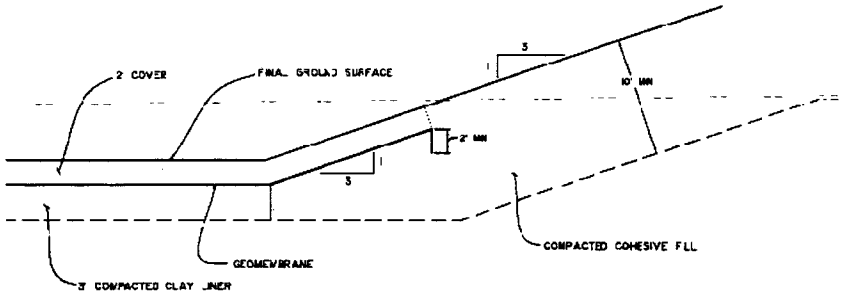
COLUMBUS UPGROUND - PHASE 1 PROJECT

Reservoir R-2 Embankments

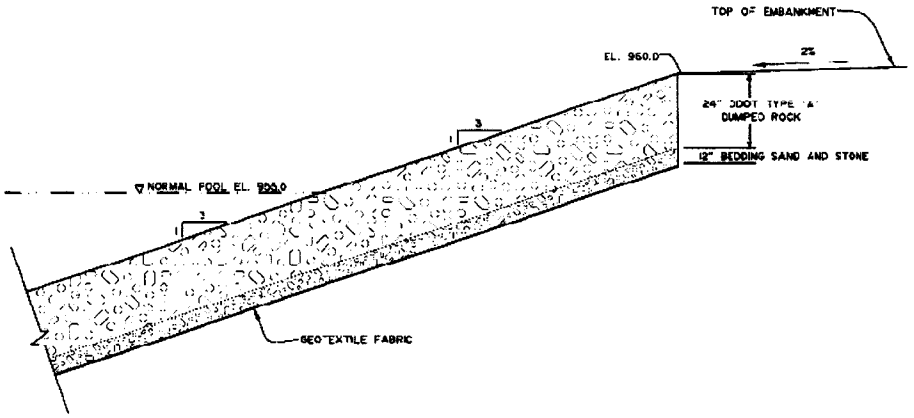
FIGURE 8



TYPICAL EMBANKMENT SECTION
SCALE: 1" = 10'



GEOMEMBRANE ANCHOR DETAIL
SCALE: NTS

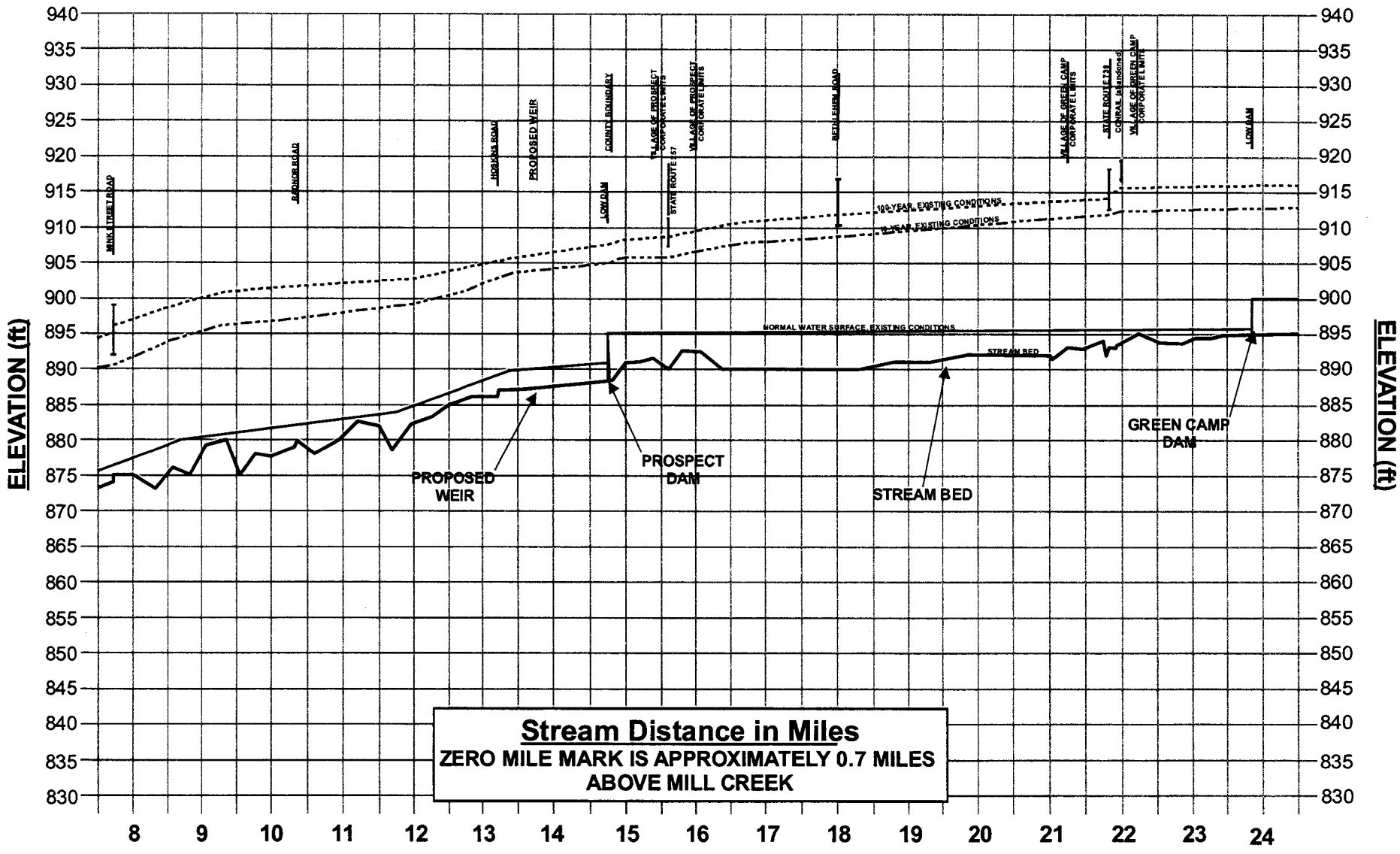


INBOARD SLOPE PROTECTION DETAIL
SCALE: 1"=5'

COLUMBUS UPGROUND - PHASE 1 PROJECT

Scioto River Profile

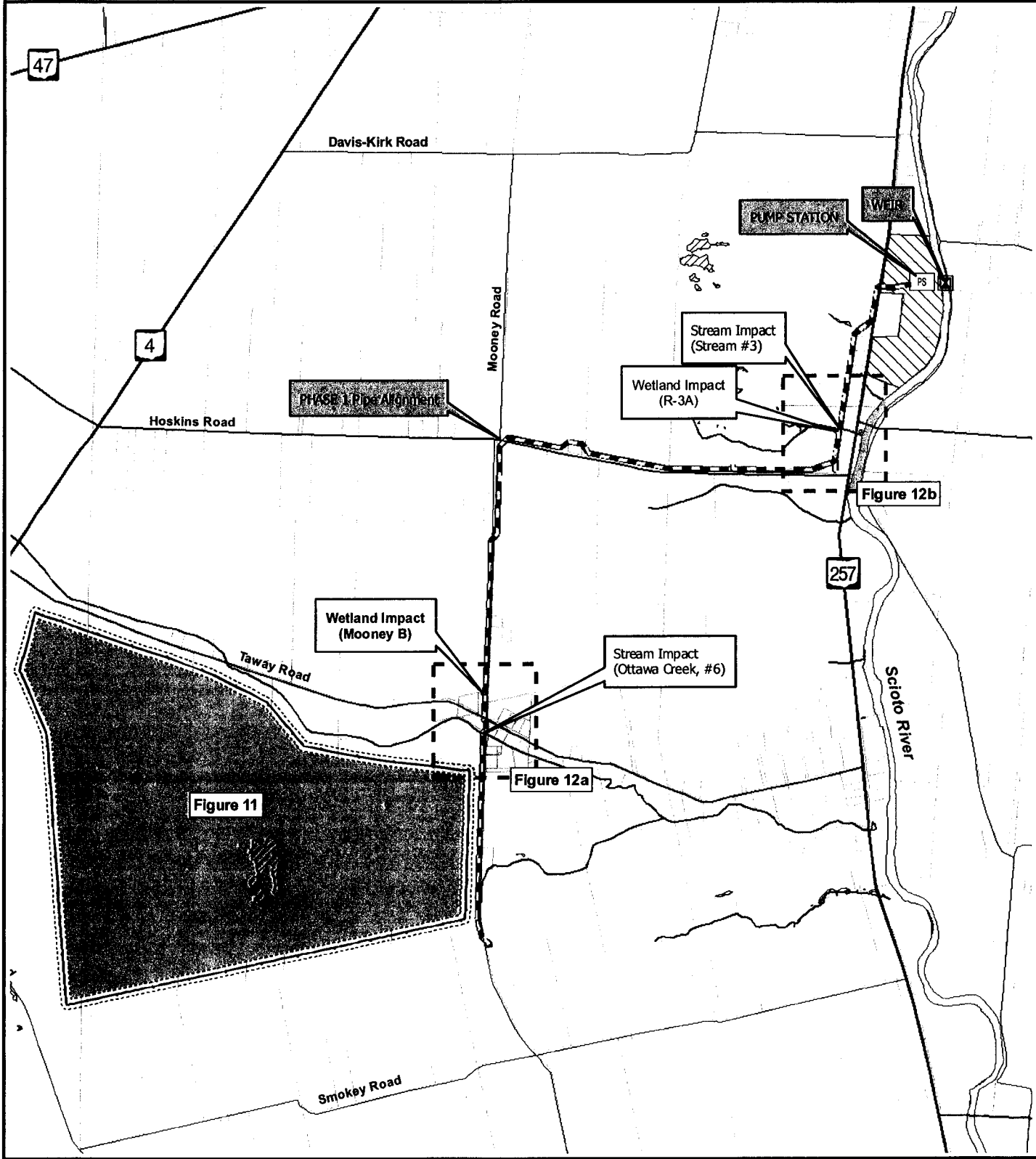
FIGURE 9



COLUMBUS UPGROUND - PHASE 1 PROJECT

Phase 1 Stream and Wetland Impacts

FIGURE 10



COLUMBUS UPGROUND PROJECT - PHASE 1

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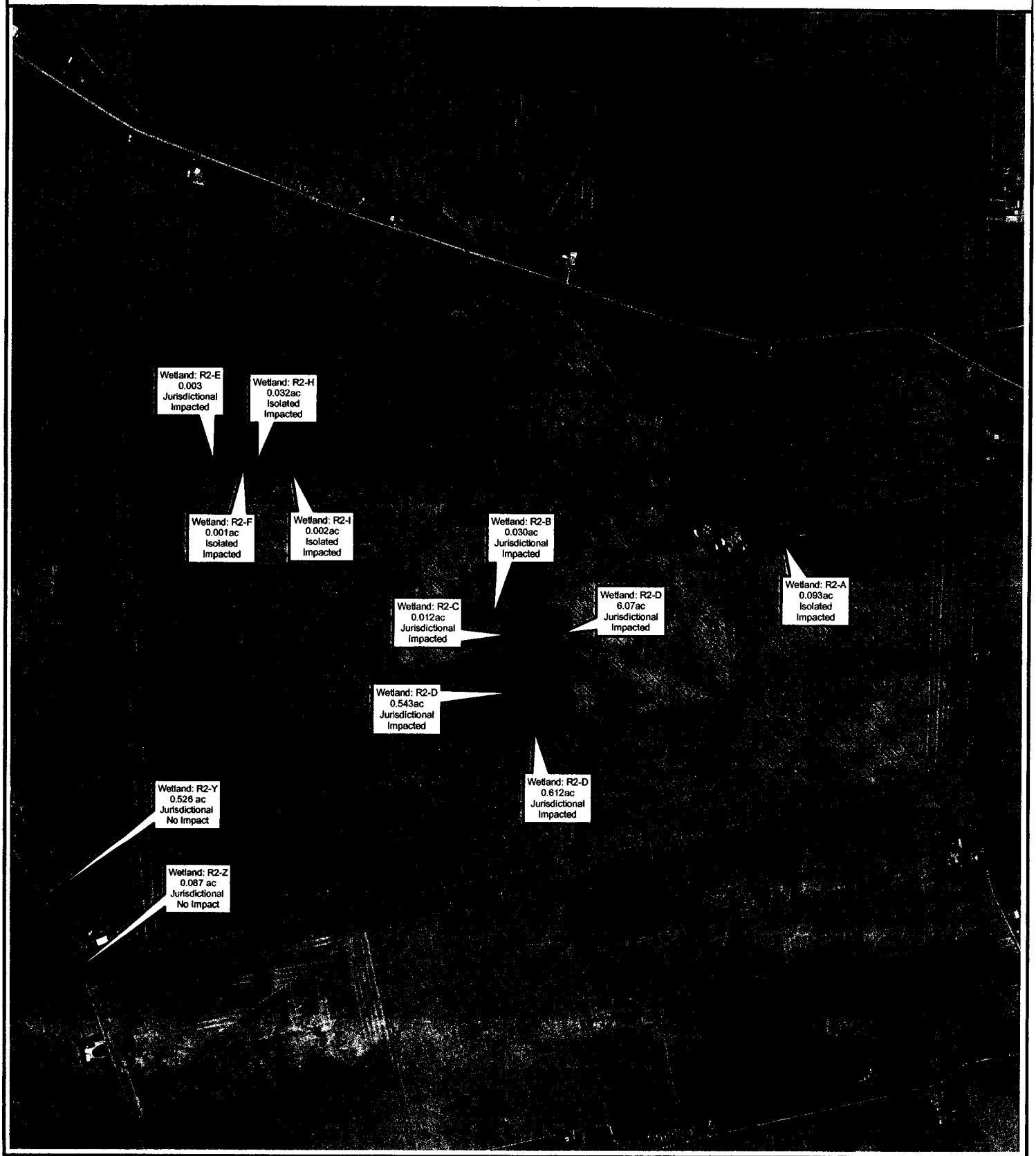
0 0.25 0.5 1 1.5 2 Miles

Reservoir R-2 - Stream and Wetland Impact

FIGURE 11



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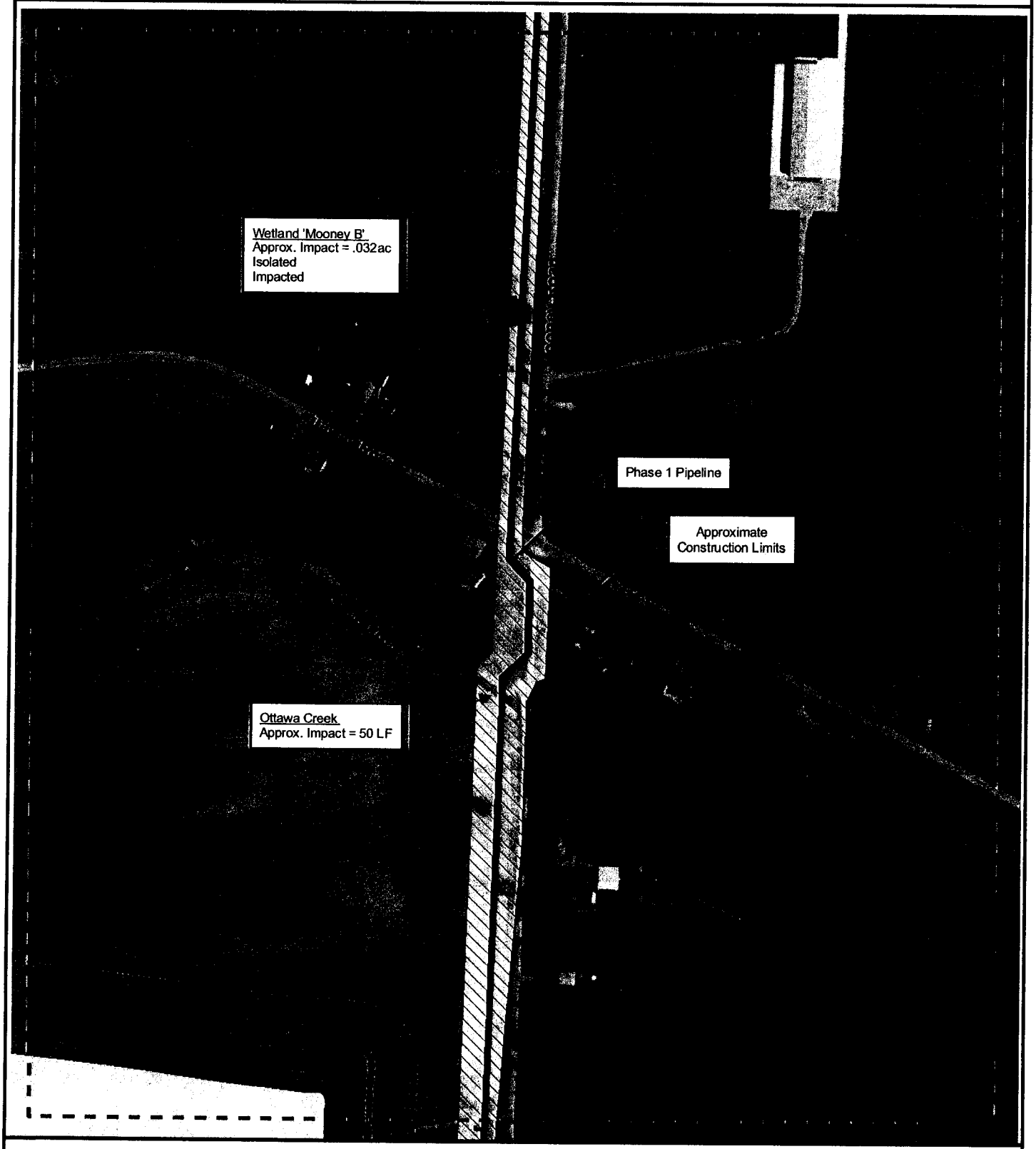
0 0.125 0.25 0.5 0.75 1 Miles

Preferred - Phase 1 Pipeline - Streams and Wetlands FIGURE 12a



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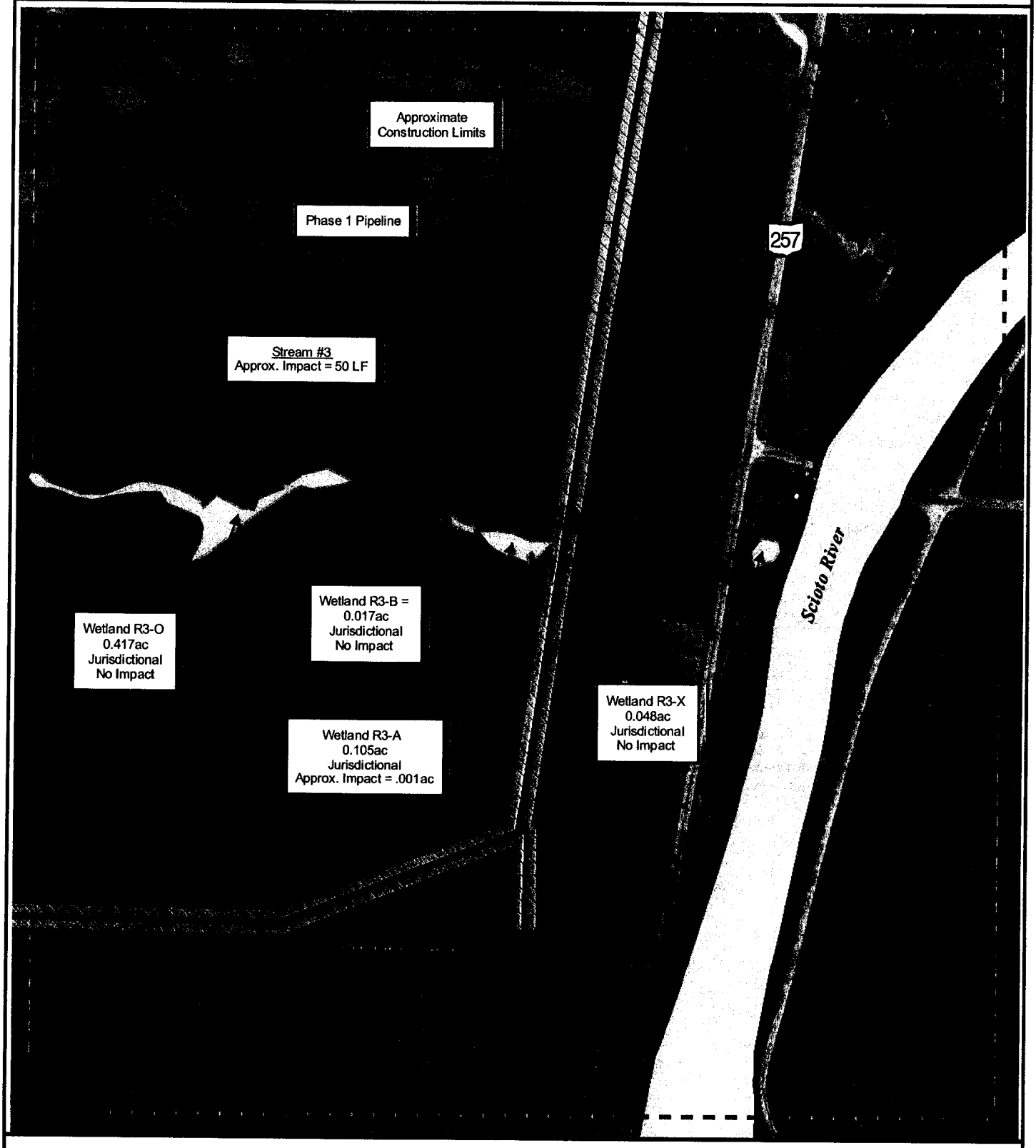
0 100 200 400 600 800 1,000
Feet

Preferred - Phase 1 Pipeline - Streams and Wetlands

FIGURE 12b



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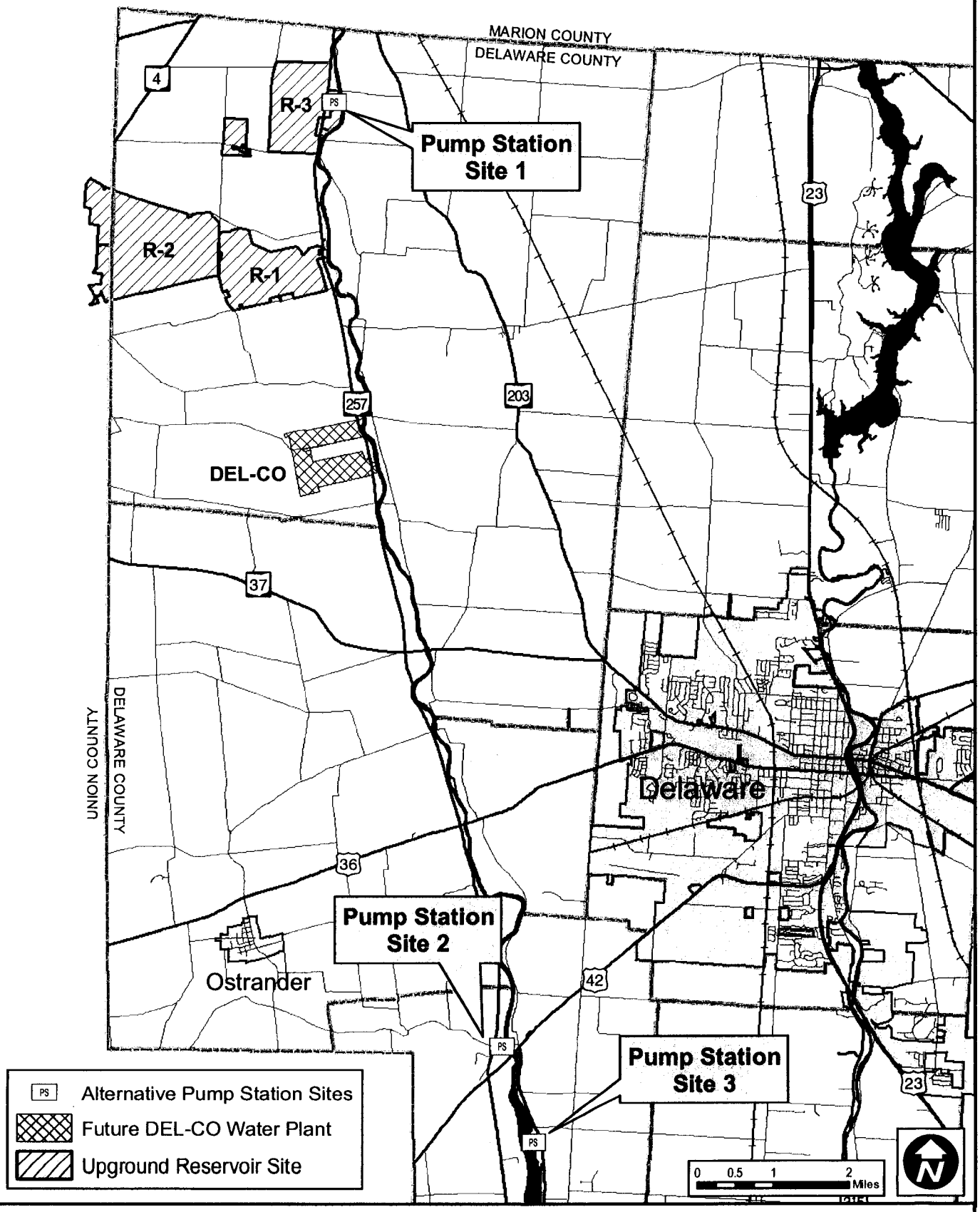
0 100 200 400 600 800 1,000 Feet

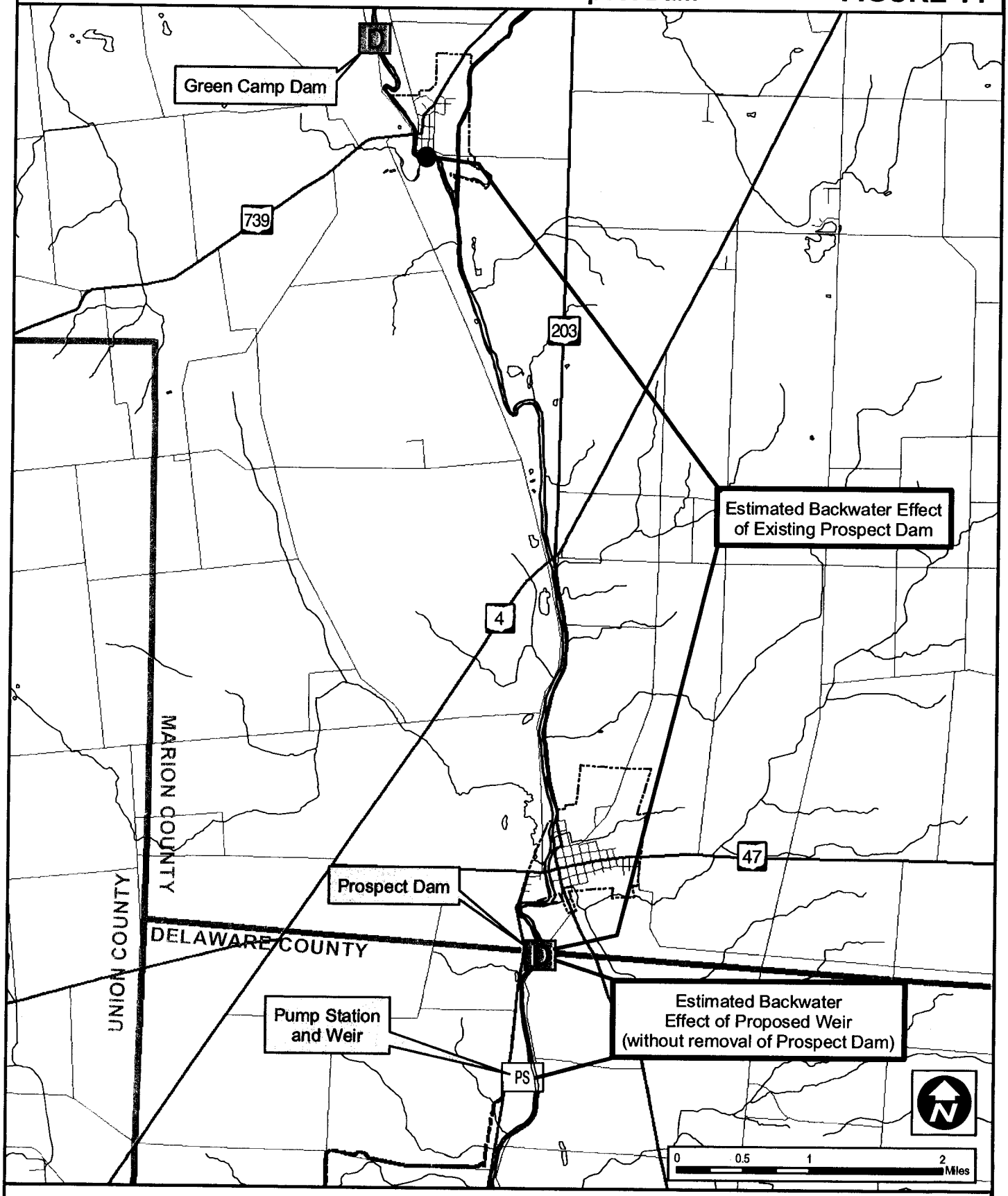
Alternative Pump Station Sites

FIGURE 13



COLUMBUS UPGROUND - PHASE 1 PROJECT

Backwater Effects of Weir and Removal of Prospect Dam — FIGURE 14



COLUMBUS UPGROUND - PHASE 1 PROJECT

Table A
Streams Affected by the Proposed Project

Site # / Feature	USGS Coord.	Description	Drainage Basin	Total Length (feet)	Receiving Stream	Distance to Receiving Stream (feet)	Drainage Area / Area at Impact Site (mi")	QHEI Score (HHEI Score)/ OEPA Use Designation	Riparian Corridor and Adj. Habitats
Stream #1 - Scioto River	40°25'37" N 83°11'32" W	The direct impact of this project is related to the installation of the inflatable weir and the resulting backwater effect on the river (100 LF of direct impact associated with weir installation, 5,500 LF of backwater impact to Prospect Dam).	05060001	NA	Lower Scioto	NA	NA	68 WWH	Moderate width riparian buffer, adjacent land use is farming.
Stream #3 - Unnamed tributary to Scioto River	40°25'05" N 83°12'15" W	This unnamed tributary is intermittent. The stream will be directly impacted by a waterline crossing (50 feet).	05060001	4,447	Upper Scioto	440	2.57 SM	55 WWH	The riparian corridor is a thin collection of shrub and stream bank willows.
Stream #6 - Ottawa Creek	40°24'12" N 83°13'22" W	West of Mooney Road, Ottawa Creek is a ditch that is maintained by Union County. Ottawa Creek will be directly impacted by a pipeline crossing (50 feet). Ottawa Creek will also be impacted by the construction of the outfall from the reservoir perimeter ditch system (50 LF).	05060001	21,250	Upper Scioto	8,309	9+ SM	31.5 MWH	No riparian corridor exists at the point of the waterline crossing. Farming activities up to the stream bank are common through this reach of Ottawa Creek.

Table B
Wetlands Affected by the Proposed Project

Wetland #	USGS Coordinate	Drainage Basin	Wetland Description	Cowardin et al., 1979 Classification	ORAM v5.0 Score	OEPA Category	Total Size (Area Impacted)	Adjacent Habitats	Proximity to Other Surface Waters
R2-A	40°23'59" N 83°13'45" W	05060001	Fringe area around pond. Surface was inundated.	PEM	15	1	0.093 (0.093)	Agricultural fields	Isolated
R2-B	40°23'51" N 83°14'20" W	05060001	Farmed open field that includes barnyard grass and is part of a wetland mosaic.	PEM	11	1	0.030 (0.030)	Agricultural fields	Jurisdictional
R2-C	40°23'50" N 83°14'18" W	05060001	Farmed open field along the property tree line includes barnyard grass and is part of a wetland mosaic.	PEM	12	1	0.012 (0.012)	Agricultural fields	Jurisdictional
R2-D	40°23'47" N 83°14'14" W	05060001	Farmed open field that includes barnyard grass and is part of a larger wetland mosaic.	PEM	16	1	7.225 (7.225)	Agricultural fields	Jurisdictional
R2-E	40°24'06" N 83°14'55" W	05060001	A small wetland amid a immature forested area.	PEM	30	2	0.003 (0.003)	Woods	Jurisdictional
R2-F	40°24'06" N 83°14'51" W	05060001	A very small wetland pocket that is in an immature forested area.	PEM	29	1	0.001 (0.001)	Woods	Isolated
R2-G	40°24'06" N 83°14'50" W	05060001	A very small pocket of sedge and redtop grass in a successional forest.	PEM	30	2	0.002 (0.002)	Woods	Isolated
R2-H	40°24'06" N 83°14'49" W	05060001	A slightly larger sedge and goldenrod wetland that includes swamp rose.	PSS	32	2	0.032 (0.032)	Woods	Isolated
R2-I	40°24'05" N 83°14'45" W	05060001	A very small wetland that includes some immature shellbark hickory saplings.	PEM	26	1	0.002 (0.002)	Woods	Isolated

Table B
Wetlands Affected by the Proposed Project

Wetland #	USGS Coordinate	Drainage Basin	Wetland Description	Cowardin et al., 1979 Classification	ORAM v5.0 Score	OEPA Category	Total Size (Area Impacted)	Adjacent Habitats	Proximity to Other Surface Waters
R3-A	40°25'08"N 83°11'57"W	05060001	A small streamside wetland that includes a variety of emergent species and no invasives.	PEM	25	1	0.105 (0.001)	Agricultural fields.	Jurisdictional
Mooney B	40°24'20" N 83°13'22" W	05060001	A very small farm pond that has become fringed with cattail and smartweed.	PEM	6	1	0.083 (0.032)	Agricultural fields	Isolated

Note: Jurisdictional determination shown in "Proximity to Other Surface Waters" is based on the results of the ACOE field determinations made in the summer of 2006.

Table C
Stream Impacts - Preferred Alternative

Stream	Type Category	Description of Impact	Impact - LF	Fill (CY)	Filled/ Excavated (Acres)
Stream 1 Scioto River	Perennial WWH	Placement of inflatable weir and related construction activities at weir site. Concrete pad will be placed on stream bottom for installation of weir.	100 LF	600 CY	0.07 acre
Stream 1 Scioto River	Perennial WWH	Intermittent backwater effect resulting from inflation of weir during high flow periods.	5500 LF	NA	NA
Stream #3 - Unnamed tributary to the Scioto River.	Intermittent WWH	Stream impacted by waterline crossing	50 LF	20	0.01
Stream #6 - Ottawa Creek	Perennial MWH	Stream impacted by waterline crossing Stream impacted by outfall of perimeter ditch system	50 LF 50 LF	10 10	0.01
		Total impact - Scioto River, fill	100 LF	600 CY	0.07 acre
		Total impact - Scioto River, backwater (includes area to Prospect Dam)	5,500 LF	NA	NA
		Waterline crossing - Intermittent WWH	50 LF	20 CY	0.01 acre
		Waterline crossing and ditch outfall - Perennial MWH	100 LF	20 CY	0.01 acre

Table D
Wetland Impacts - Preferred Alternative

Wetland ID	Type	Category	Impact	Total (Acres)	Impact (Acres)	Excavate (CY)	Fill (CY)
Jurisdictional Wetlands							
R2-B	PEM	1	Impacted by construction of Reservoir R-2	0.030	0.030	48	
R2-C	PEM	1	Impacted by construction of Reservoir R-2	0.012	0.012	19	
R2-D	PEM	1	Impacted by construction of Reservoir R-2	7.225	7.225	11,656	
R2-E	PEM	2	Impacted by construction of Reservoir R-2	0.003	0.003	5	
R3-A	PEM	1	Impacted by construction of Phase 1 pipeline	0.048	0.001		2
			Total - Category 1 PEM Jurisdictional Wetlands	7.315	7.268	11,723	2
			Total - Category 2 PEM Jurisdictional Wetlands	0.003	0.003	5	
Isolated Wetlands							
R2-A	PEM	1	Impacted by construction of Reservoir R-2	0.093	0.093	150	
R2-F	PEM	1	Impacted by construction of Reservoir R-2	0.001	0.001	2	
R2-G	PEM	2	Impacted by construction of Reservoir R-2	0.002	0.002	3	
R2-H	PSS	2	Impacted by construction of Reservoir R-2	0.032	0.032	52	

Table D - Continued

Wetland ID	Type	Category	Impact	Total (Acres)	Impact (Acres)	Excavate (CY)	Fill (CY)
R2-I	PEM	1	Impacted by construction of Reservoir R-2	0.002	0.002	3	
Mooney B	PEM	1	Impacted by construction of Phase I pipeline.	0.083	0.032		134
			Total - Category 1 PEM Isolated Wetlands	0.179	0.128	155	134
			Total - Category 2 PEM Isolated Wetlands	0.002	0.002	3	0
			Total - Category 2 PSS Isolated Wetlands	0.032	0.032	52	0